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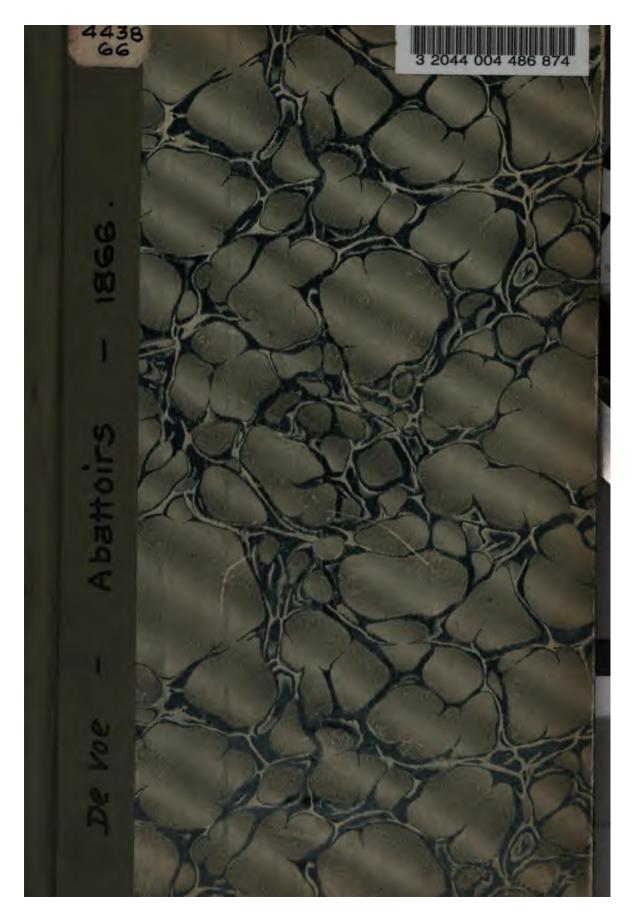
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ABATTOIRS.

A

PAPER

READ BEFORE THE POLYTECHNIC BRANCH

OF THE

AMERICAN INSTITUTE,

JUNE 8, 1865.

BY THOMAS F. DEVOE,

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ABATTOIRS.

The paper which I have the honor to submit before this Association this evening relates to a subject that I am compelled to say possesses little to recommend it—either for its sentiment or as a branch of the fine arts, or of science—in the ordinary sense of the word. Notwithstanding the character it possesses, this very character has been the means of forcing it into existence, as an interesting subject for discussion among all communities, municipalities, associations, learned men, sanitary committees, and others who have devoted to it much attention and consideration.

Some month or two since, a prominent member, with the worthy chairman and secretary of this Association, expressed a desire that I should say something before you in relation to the subject of Abattoirs. I hesitated at the moment, because I hastily came to the conclusion that this subject was unsuitable as it would be uninteresting, and therefore unacceptable to "ears polite"-and more especially as the "cunning" of the business of conducting Abattoirs neither related to art, to science, nor to any branch of mechanics recognized by the American Institute. However, in glancing over the Transactions of this Association of former years, I was there reminded that almost every matter relating to the advancement of scientific knowledge, bearing on the welfare of man, had engaged the attention of this Society. As an old and zealous member of the "Institute." I thought it my duty-with what abilities I possessed-to present such knowledge, or, at least, some of the prominent facts which in long practical experience I had gained, with also the little historical information which had been obtained from our city's records on this subject, extending my researches to the gleaning of something which may suggest the correcting of the many theories advanced by unpractical but learned men. I therefore concluded to act upon the expressed wishes of the gentlemen referred to.

As I have already said, the subject before us does not recommend itself for elegance, but rather as a necessity. To many, no doubt, it presents repulsive features; features even revolting to some persons. Abattoir, a place for slaughtering animals. In my own mind, I am not quite satisfied

with the word Abattoir, which, of course, is correct on its native soil; whether its foreign name will refine the character of the subject, by the introduction of affected "foreign airs" to the exclusion of our "native graces," which, worn so long and used and associated with our common vernacular, have been accepted and known to us by the title of slaughterhouses; this question is for you to decide with the poet's sentiments:

"The rose will smell the same, Grace it with any other name."

The subject then of Abattoirs, or, in plain English, slaughter-houses, is one of much importance, as it is found to be absolutely necessary to have suitable places for converting animals into food. Many objections have been made to the present disposition of private slaughter-houses, as to their unhealthiness, &c. The principal questions now presenting themselves are: Is the presence of slaughter-houses in parts of our city, the superinducing cause of disease in their neighborhood? If they are, what is the character of the diseases they produce, and in what manner are they detrimental to health? These questions we demand shall be answered-not upon opinions, theories or the hypothesis of interested persons seeking popularity with the hope of ultimately putting money into their pockets; but they must be answered practically, from the experience of men who have watched the institution of abattoirs and the effects of the presence of slaughter-houses upon the health of communities; from men of skill and science who can unite their skill with scientific research, in attaining to certain and well defined results.

Anticipating these questions, I may, perchance be pardoned if I attempt to demonstrate the exalted origin of the slaying of animals, whether for consecration or for the food of man.

THEIR ORIGIN.

Commencing then with the first offerings by the children of Adam. The Bible states that hundreds of animals were killed, and that their flesh was eaten—how soon after the creation of man, animals were sacrificed to support human life does not appear; but this we know that the flesh of flocks and herds has ever been food for man.

Abel, the first-born, was a "keeper of sheep," and in his offerings to the Lord, brought the firstlings of his flock and the fat thereof," which, no doubt, represented the fattest lambs of his flock; but whether they were made fat to be eaten as food, or to be used for sacrifice or burnt offerings, does not appear.

Of the time of Noah we read that "every moving thing that liveth shall be meat for you; even as the green herb have I given you all things; but the flesh with the life"—living flesh—"shall ye not eat." Then when Abraham entertained the three angels, he "ran unto the Lord and fetched a calf tender and good, and gave it to a young man, and he hastened to dress it. And he took butter and milk, and the calf which he had dressed, and sat it before them; and he stood by them under the tree, and they did eat."

At a later period, St. Paul also says: "Whatsoever is sold in the shambles, that eat, asking no questions for conscience sake."

Among the ancients, the first places particularly noticed where animals were slaughtered is found to have been either in or near their most holy places of worship—close by their tabernacles and altars. In religious sacrifices and ceremonies we find that Moses was thus commanded; "and thou shalt cause a bullock to be brought before the Tabernacle of the Congregation, and Aaron and his sons shall put their hands upon the head of the bullock, and thou shalt kill the bullock before the Lord by the door of the Tabernacle of the Congregation. And thou shalt take of the blood of the bullock, and put it upon the horns of the altar with thy finger, and pour all the blood beside the bottom of the altar." "And thou shalt offer every day a bullock for a sin-offering for atonement; and thou shalt cleanse the altar when thou hast made an atonement for it."

Again—"Thou shalt offer upon the altar two lambs of the first year, day by day, continually. The one lamb thou shalt offer in the morning, and the other lamb thou shalt offer at even." In the Third Book of Moses, we also find, when he was called upon for burnt offerings: "He shall kill the bullock before the Lord, and the priests, Aaron's sons, shall bring the blood, and sprinkle the blood round about upon the altar, that is the door of the Tabernacle of the Congregation." Then a male sheep or goat, "he shall kill it on the side of the altar, and the priests, Aaron's sons shall sprinkle his blood round about upon the altar." The lamb he shall "kill it before the Tabernacle of the Congregation, and Aaran's sons shall sprinkle the blood thereof round about upon the altar."

It would thus appear that this ancient people made their places of worship, and particularly those of the most sacred character, their daily Abattoirs, and whether this was done as a part of their worship or not, the act was the same. It would also appear that the victims were slain by their priests, and sometimes by their inferior ministers, as we find at the Feast of the Passover, each head of a family was at once priest to kill the sacrifice, and the butcher to slay for the food of the household.

GRECIAN CUSTOMS.

Among the ancient Greeks it was also the office of the priests to slay the victims for sacrifice, and of the head of the family or his sons to kill for food. Many instances may be found in Homer: as when Agamemnon kills the lamb, the blood of which was to be the seal of the treaty made with the Trojans, and also, when Nestor sacrifices to Minerva, his cwn sons kill the victims, cut the flesh in pieces, and broil it.

These sacrifices were continued on by the ancients for generations, and for a more particular description of them I quote the following: "None were to approach the altar until they were first purified, nor must the victim be laid on it, until it had received its lustration with meal and holy water, gathered from their lavatory, styled chernips.

Some sprinkling of this water was strewed on the standers by, and then some sacred meal was cast on them. This done, the priest offered up his orizons, and then the sacrifice was conducted to the altar with the head downwards, if it were devoted to the infernal gods; but upwards if it were dedicated to gods celestial. The heart, spleen, liver, and fat were

offered to the deities, the residue of the victim was a feast for the priest and people.

"They were accustomed to try if the sacrifice would prove acceptable to their gods by placing a cake upon the head, between the horns, which were in solemn feasts gilded; if the beast was composed and quiet it was judged to be a fit sacrifice, but if disordered and tumultuous it was rejected."

In the morning they used to sacrifice to their gods, in the evening to their demigods or heroes. The Greeks did not as the Romans, grind the corn they placed on the head of the victim, but laid it on the mass, to demonstrate the ancient mode of feeding before the grinding of corn was instituted. They were accustomed also after the sacrifice and feast to burn the tongue of the beast, and sprinkle wine on it, to signify that after eating and drinking, the tongue should be obliged to keep silence.

Thus we also learn that the first butchers were those that held the highest and most holy office, but at what period the office of killing became a separate trade or profession, it may be difficult, if not almost impossible, to determine; probably at various times in various countries, and in various parts of the same country. It is in the province of civilization to make trades or profession, for, as the wants, either real or imaginary, of men increase, and there is a greater demand for any article, it became profitable for persons to confine themselves to fewer objects, and by this means much time is saved, and business is executed with greater facility. Thus in any district, town or parish, it is better for one man to confine himself to make clothes or shoes, or to build houses, or to kill animals for all the rest, rather than for each person, or each head of a family, to practice all these employments. In this way, as did men in other trades or professions, no doubt, the butcher began his vocation, and so from killing for others, soon took upon himself to slaughter his own animals, and then to sell or trade portions of them to those who were not able to use a whole animal before it spoiled. This, of course, demanded a place to slaughter in, or perhaps no particular building had yet been prepared, but some outhouse, shed, tree or open field was made the abattoir. A friend of mine, or rather an old apprentice, who resides in Illinois, in a letter to me a few years ago, says: "Our country is open and catile hard to drive, so I take a rifle, tackle and block, chopper knives, pritch and spreaders, and three long studs to erect a shears, then shoot and dress the animal on the spot. You will think it queer butchering, but I have got used to it, and get along quite handy." So that he makes the open plain an abattoir.

From the time of the settlement of our country, it was, and has been until within a few years past, a custom of the farmers to have what they have called "the killing time," slaughtering then a bullock or two, with several hogs, and perhaps a few sheep, which had been fatted expressly for the family's provisions to serve the next year. This generally took place late in the fall, or sometimes as late as Christmas; and then the barnfloor was used, with the tackle fastened to the stout girders or beams, and the animals were hoisted and dressed, and thus this became the farmer's abattoir for the occasion. The hogs, however, were dressed near their pens where a rough frame work was erected, and hot water could be easily precured. An open-air abattoir answered for this purpose.

NEW YORK TWO HUNDRED YEARS AGO.

In turning to our city, and glancing back more than two hundred years, we find among the records an order dated 1656, in relation to slaughtering animals, which reads thus: "From this time forth, neither in this city, nor on the plains belonging to this province, shall any cattle, hogs, goats or sheep be permitted to be slaughtered, not even by the owner himself, unless the owner first, on the same day he intends to slaughter, shall have given in such creature as his own, to the magistrate of the respective place to which he belongs, and from him obtained a slaughter certificate," for which he was obliged to pay a fee or excise, according to the size or value of the animal, to a public officer called "Slaughter Farmer." At the same time sworn butchers were ordered and confirmed, "Who shall each be bound to serve in butchering and cutting up, and to provide, have and possess their own ropes, hand-barrows, troughs, and other articles requisite for slaughtering, and receive" certain fees which are particularly stated. The oath taken by the sworn butchers, under Governor Nicholls' administration, somewhat differed from those previously taken, and thus read: "We doe swere, in the presence of the Almighty God, that we, as sworne butchers of this citty, shall kill noe cattle, hoggs, etz., without a ticket of consent from the Collectors of the Mayor and Aldermen, except it be for the Right. Hon. Governor Richard Nicholls. So help us, God Almighty."

Previous to the year 1676, cattle were slaughtered in the city below Wall street, and on the Brooklyn shore, and perhaps those in the city were not kept as orderly as they should have been, and perhaps they annoyed the inhabitants around them, for they were all commanded outside of the City Wall, or above the present Wall street; this, however, gave the "Slaughter Farmer" so much trouble to examine each animal, especially when it took place on the same day, and the wrangles which no doubt occurred about their value, that the authorities caused a public slaughterhouse "to be built for the use of the Cytie over the water, without the Gate at the Smith's Fly, near the Half-Moone."

This "Half-Moone," represented a small half-circle battery, situated at the east end of the wall of the city, on the shore of the East river, and the site of the first public slaughter-house, or Abattoir, would now be on the east side of Pearl street, between Wall and Pine streets. This fact, however, is further shown by a survey made in 1686 of the north side of Wall street, which reads: "Have laid out ye northeast side of Wall street, beginning at ye westermost corner of ye Butcher's Pen," or yard belonging to this public establishment. We also find this building distinctly marked down on the Rev. John Miller's plan of New York, printed in 1695.

A sworn butcher named Asher Levy, and Gerrit Jansen Roos, a carpenter, erected this public slaughter-house, and became the "Slaughter-Farmers," and they set forth "That all persons should have liberty to kill and hang therein meat, there paying for the same as formerly"—that is so much per head, according to the value of the animals.

In the month of June, 1696, this public institution, or rather the slaughtering part of it, was thus ordered to be removed: "No butcher or other person whatsoever doe slaughter any cattle of any kind after ye seventh day of July next." Capt. Ebenezer Willson had previously obtained the privilege of building two public slaughter-houses close together near the present Peck-slip, on the shore of the East river, and a lease of the same was granted him for thirty years; but before his lease expired we find them under the control and possession of the "widow Cortlandt and Johannes Beeckman, who appear to have owned the land and purchased the lease of Capt. Willson or his heirs, and before the thirty years had expired the property in this neighborhood had become very much enhanced in value by the rapid growth of the city along the sloping grounds of the East river shore, and more particularly on Queen (now Pearl) street, which was then known as the "Fly," the fashionable locality representing the Fifth avenue in the "olden time."

In 1720 we find that the progress of building fine residences in this then attractive neighborhood had been stayed by the existence of these slaughter-houses, and it became necessary to petition for their removal. One of these petitions stated that "in order that more convenient and ornamental buildings may be erected there, and in that neighborhood, which is now retarded by occasion of the said slaughter-houses," &c. Although the lease had not expired, yet the lessors, who owned the property, were quite willing that it should be removed from their lands, which now had become much more valuable for improved residences; and, no doubt, when John Kelly had offered his three water-lots, of seventy-four feet wide, which he describes in a petition to the Councils as a "convenient place for the situation of a slaughter-house for cattle," he had made a satisfactory arrangement with the former lessees, and thus secured the privilege, as shown in the following report:

"We are also humbly of opinion, that the place proposed by the petitioner, John Kelly, for the erecting of public slaughter-houses and penn, upon the East river of this city, a little to the westward of the now dwelling house of Mr. John Dean in the said East ward, is a convenient place for that use and service, being the freehold of the said John Kelly, and that he ought to have a grant for the term of twenty-one years." They also stipulated that he should have them all built or regulated "on or before the first day of October next, (1720) and to inclose a sufficient quantity of ground for a public penn or pin-fold, sufficient to hold and secure all neat cattle that shall be brought there; and also to keep all in good and sufficient repair, plight and condition, well and sufficiently scoured and cleansed." The authorities also promise "that no other slaughter-house, from thence forward, shall be built and erected on the East river during the said term."

The location of these newly-created public slaughter-houses, was just below Dean's dock, (near the present intersection of Roosevelt and Water streets,) where all the cattle were landed which came across the East river from Long Island.

KOLEK POND.

In the month of November, 1722, "It is ordained, that all cattle for slaughter that hereafter shall be landed, or brought into this city, on the south side of Fresh-Water, (Kolek Pond,) shall be killed at the public slaughter-houses."

Before the term of the lease of John Kelly had expired, the business of slaughtering at his premises had so much increased, that at certain seasons the butchers found the accommodations very much too small, and it therefore became troublesome and onerous to them, as each had to wait for his turn; this often detained them a good part of the night, or else they were without a supply for the next day; this cause, no doubt, led those who resided in the out ward to make use of their own premises to do their slaughtering in; and thus the Slaughter-Farmer was deprived of his fees. This was the means of introducing an ordinance, which was passed in 1749, forbidding persons from slaughtering "any neat cattle in his, or her, or their house, barn, stable, outhouse, yard, orchard, garden, field, or other

place, in the out ward of the city of New York."

The effect of this ordinance was to drive many of the butchers back again into their former difficulties, while others moved to Brooklyn, where, on the shore below the old ferry, they established their own slaughterhouses. In the meantime, several of the prominent butchers had been in search of another place more convenient than the old one, which they found near the "Kolek," on the land belonging to Assistant Alderman Nicholas Bayard, who owned a large tract on the north and east of this large pond, then known as "Fresh-water." They had also either bought or obtained the consent of Thomas Burns, the then keeper of the slaughter-houses on the East river, to surrender his lease, or the disposal of his right, if they were successful. So in the month of October, in the same year (1749). the butcher's petition to the "Councils," "to be allowed to build a public slaughter-house at their own expense at Fresh-Water;" but permission, it appears, was not granted to them. But the next year Assistant Alderman Bayard had influence enough with the "Councils" to obtain the privilege which the butchers were denied, and on such terms as would lead us to think that he wanted a very large and valuable right for a very, very small sum of-not money-but I will read a portion of this lease. On his own land he was to build a public slaughter-house on the "south side of the point of upland near the Fresh-Water Pond, being about eleven or twelve chains to the westward of the High Road, (the present Bowery,) and three chains to the eastward of the said Fresh-Water Pond; and do also give grant and confirm unto the said Nicholas Bayard the office of keeper of the said slaughter-house, unto the full end and term of twenty-one years, with all manner of fees, wages, rewards, profits, benefits and emoluments, to the said public slaughter-house, yielding and paying therefor yearly and every year, unto the mayor, aldermen and commonalty of the city of New York, on the feast day of St. Michael, the Arch Angel, the yearly rent of one pepper corn, if the same be lawfully demanded."

When this large building became established, the law in relation to it was altered, so as to read: "That instead of the public slaughter-house by the water-side, all neat cattle to be killed at the slaughter-house belonging to Mr. Nicholas Bayard, on the land on the north side of the Fresh-Water." This site is now the southwest corner of Mulberry and Bayard streets.

BULL'S HEAD.

In the establishment of this large public slaughter-house, was also established the once famous "Bull's Head in the Bowery," where now stands the Old Bowery Theatre.

There had previously been a somewhat noted tavern called "Half-way House," kept on this spot by one Stephen Carpenter, who also kept stabling and pasture-lots for horses and cattle, all of which he had leased from Bayard, and when Bayard had erected this public institution, he also fenced in ground enough around it for yards to inclose the cattle and sheep which the butchers brought there for slaughter. These pasture-lots of Carpenter's also extended down to those vards, and were sometimes used to graze the surplus cattle of the butchers, as well as those which soon after were occasionally brought in for sale by the farmers who put up at this tavern, and thus it became a sort of headquarters for all the cattle brought in for the city's consumption. The business of the "Half-way House" being now partially changed, the landlord, whether in compliment to his new patrons or not, concluded to change at least the outward sign by which his house was known, with a very strongly marked painting, which soon after was elevated on the extended arm of a high stout post standing in front of his tavern-door. This rough painting, alike on both sides of a square swinging sign, represented a ferocious Bull's Head, and thus this once celebrated public house became known as the "Bull's Head in the Bowery Lane." In the month of March, 1755, an advertisement thus reads: "This is to notice to all gentlemen travelers, and others, that George Brewerton is removed to the sign of the Bull's Head, in the Bowery Lane, being the house wherein the late Stephen Carpenter, deceased, formerly lived, and where good entertainments will always be given to man and horse."

ONE HUNDRED YEARS AGO.

Nicholas Bayard was largely engaged in mercantile business, which, with public duties in connection with his vast estate, no doubt was enough to keep his time fully employed, and therefore render him unable to give his personal services to the office of "Keeper" of this public slaughter-This compelled him to engage an assistant keeper, who, it seems, was not allowed to repair or replace the necessary wants of this establishment, else he was an inefficient overseer, as we find a few years after. the accommodations were in such a state of neglect that the butchers, after bearing with him for a long period, remonstrated, as they state in a petition in 1760, "that in consequence of the neglect of Mr. Bayard to provide ropes and other tackle, keeping the houses in repair and clean, the pump having been out of order for six or seven years, they wish the corporation to oblige Mr. Bayard to keep them in order, or in default thereof to indulge the petitioners with the privilege of erecting slaughter-houses for themselves in such convenient places as they shall provide, and which this corporation shall approve of." This was signed by twenty-two butchers, who were very much disappointed in finding their petition not only rejected, but that Mr. Bayard had soon after succeeded, through petition, in again inducing the Councils to add to his former lease, as we find it recorded: "On petition of Mr. Bayard, the clerk was ordered to prepare a lease for the term of eighteen years, to commence the 12th of September, 1771," which would extend the term to the year 1789.

Soon after this renewed lease, Mr. Bayard, after a short indisposition, died at his seat in the Bowery, on November 14, 1765. He represented the second Nicholas, his father being the first Nicholas Bayard, who came over with Gov. Stuyvesant, and died in the year 1711. The lease of the public slaughter-house now fell into the possession of his son—the third Nicholas Bayard—who soon after engaged a butcher, connected with the then Fly Market, who was highly recommended as a capable, honest and trustworthy man, named Richard Varian, as superintendent of this large establishment. (He was the grandfather of the present efficient commandant of the Eighth Regiment, Col. Joshua M. Varian.)

Richard Varian faithfully attended to his duties as superintendent, beside his own, on his stall in the market; and we find a few years after, (1773,) Bayard induced him also to take charge of the "Old Bull's Head" Tavern, and the pasture grounds then attached to it, by granting him a favorable lease, with the privilege of purchasing a certain portion of this Bull's Head property, which he (Varian) informed an old friend of mine was about 200 feet on the Bowery, and running through to the present Elizabeth street, making in all 16 lots of ground, for £320.

In the building of this public slaughter-house, Bayard supposed he had made it commodious enough to accommodate all the slaughtering for the city, to the end of his lease; but events of the most exciting nature occurred soon afterward, which, no doubt, at least, led his son to change his opinion. The measures adopted to defeat the Stamp Act in 1766, gave such on impetus to trade, and so encouraged the farmers, merchants and citizens to produce and encourage all sorts of home productions, that it started a new life in the city, and tended much to increase its population and traffic.

The butchers also profited from this cause, but they were sorely punished by an onerous law inflicted upon them in their duties, at a time which nature had assigned for rest.

However, we soon after find that some relief had been obtained for them, through petition, by a law to regulate private slaughter-houses, passed June, 1771, by which they were allowed to slaughter above or north of the line "that leads from the Bowery lane to the house of Mr. Nicholas Bayard, (the present Broome street,) running west to the North river, and then up the Bowery lane to the middle of the lane (now Delancey street,) which leads from the Bowery lane, and passes the house of James DeLancey, Esq., and running to the East river." "It shall and may be lawful for the keeper of the said publick slaughter-house to demand, receive and take from every butcher whatsoever, for the use of the said slaughter-house, pen, pen-fold and tackle and furniture thereunto belonging, the fees, dues and duties hereafter mentioned, that is to say, the sum of one shilling, for each neat cattle killed, slaughtered and dressed, and the like sum (or the tongue of each head of neat cattle so killed) by any other inhabitant not exercising the trade of a butcher."

MARKET PLACES.

From this public slaughter-house every week day morning, usually between the hours of one and six o'clock, many of the butchers were loading their meats in carts and wheelbarrows by the light of their tin lanterns. as their turn came, through storms and cold; then they took the nearest. although at that period a very rough or miry road that passed along by several mulberry trees, which afterwards gave a name to this much-dreaded route; then turned down on "Fresh-Water Hill," (which became known in 1780 as Chatham street,) when those who belonged to the several markets on the East river—the Peck-slip, Fly, Coenties-slip, Old-slip and Exchange markets-turned into Queen (now Pearl) street, after crossing "Kissing Bridge," and continued on down to their different markets, while those who belonged to the Broadway market, then known as the Oswego market. continued on down the road leading to the "Spring Garden," past the "Fields," into the Broadway, and so down to Crown (now Liberty) street, where the Broadway, or first "Oswego market" stood, exactly in the middle of that now famous and thronged thoroughfare, "Broadway."

Mulberry street, during or just previous to the Revolution, became usually known as "Slaughter-house street," as we find in 1776, among the list of retailers of spirituous liquors, Archibald Gatfield, in Slaughter-house street, was not licensed. In 1779, an advertisement reads: "The subscriber, a refugee from Portsmouth, takes this method to inform the public that she is willing to serve any gentleman as a housekeeper, also sewing, washing, &c., living in Slaughter-house street, and may be found at Mrs. Davis'.—Eliza Wilson." Then: "Three Pounds Reward.—Lost, last Monday night, out of the King's Ropewalk Yard, near the 'Fresh-Water Pump,' a sorrel horse, with a white mane and tail, branded 'I. D.' on the left shoulder. Whoever will bring him to Archibald Gatfield, in Slaughter-house street, shall receive the above reward."

During the Revolution, and while the British troops held possession of our city, there were no laws, restrictions or superintendence given to this public slaughter-house, and the consequence was that it was allowed to remain in a disgusting condition, and usually much out of repair. Occasionally, however, it was fitted up for a bull, bear, dog or cock fight, which was duly announced, for the benefit and amusement of that kind of gentry which some of our ancestors have so kindly handed down to us, and many of whose successors now feel occasionally very bitter that a villainous law should drive them into a seclusion, when their inclination leads them to indulge in these not very elevated and refined kinds of amusement.

The Royal Gazette of 1783 notices: "A bull to be baited at the public Slaughter-house on Monday next, if fair, or the first fair day thereafter; the ring to be staked off, and it is earnestly desired that no person will enter it, except the owner of the bull and the owner of the dog that runs; the bull to be at the stake at 3 o'clock."

In the meantime the butchers who had remained, or commenced business during the Revolution, and were able to provide their own buildings, took advantage of the circumstances and put up their slaughter-houses, many of which were connected with their residences, and also having them as convenient to the Bull's Head as possible, while the military authorities caused another public slaughter-house to be erected on the White Hall Dock (near the present intersection of Moore and Water streets,) which they appropriated principally to the use of the army and navy.

FIRST DURHAM CATTLE.

One of these butchers named Robert Heaton, afterwards became prominent, by the introduction of the first improved breed of cattle, known as the Durham breed, into the United States, and continued on as an excellent farmer and stock raiser. Before the close of the Revolution he advertises: "A lot to be sold in Mulberry street, near the 'Tea Water Pump' in New York, consisting of three dwelling houses, one slaughter-house, two stables and a large yard,"—which disposed of, he moved to Throgs Neck on a fine farm.

FREE NEW YORK.

After the evacuation of the city by the British troops, many of the patriotic returned; in fact, many took possession of their dwellings and other buildings before that event, and among these was the wife of Richard Varian, who immediately assumed her former duties as hostess of the "Bull's Head Tavern." Her patriotic husband, however, was then lying in prison at Halifax, having been taken in a privateer which he had joined and which, while returning with a prize, was overhauled by a superior force, by whom he was stripped of all he possessed. It was several months after peace was proclaimed before he was enabled to reach his old residence; and then to be greatly disappointed to find the wretched condition of the public slaughter-house, which, no doubt, induced some of the neighborhood to petition for its removal to the East river shore. This petition was favorably received by the newly-organized Councils, who in the end decided to change its location. This, indeed, was a sad blow to him, but he still indulged a hope that he might make a successful plea, through his patriotic services to his country; and we find a petition from him in the month of April, 1784, setting forth "that he holds a lease from Nicholas Bayard for the slaughter-house and the 'Bull's Head Tavern'that he had the superintendence of it for several years before the late war, and flatters himself he conducted the same in such a manner that no well grounded complaint was ever made of its being offensive, and if it has been otherwise of late, the same may be wholly attributed to the state in which it was left by the British at the evacuation-that he has a large family to support, being sixteen in number, and has been in exile during the late war, and without presuming on his own merits, he begs leave to say that he has ever considered it his duty to exert himself to the utmost of his power in the service of his country."

We also find a petition from some thirty odd of his old neighbors living near by this public slaughter-house, who were opposed to its removal, since Varian's return; and another from twenty-five of the principal butchers, who state "that the said slaughter-house having by law been fixed and established for many years—and they were precluded from killing cattle at any other place to the southward thereof—they have purchased and built their dwelling-houses in the neighborhood for their convenience; the said

slaughter-house being near by the Bowery lane, where droves of cattle are usually brought. That they have every reason to be satisfied with the conduct of Mr. Richard Varian, the superintendent of the said slaughter-house, to render it of public utility and from being offensive."

Several other petitions were also before the "councils" at the same time, in relation to it; one of which, from Richard Dean, a noted distiller on the North river, who wished to erect one at the back of his distillery, goes on to state "that he will convey warm water from it to keep it clean; the cattle can be landed at his dock from New Jersey, which may probably be an encouragement for more cattle to be brought from that quarter than has heretofore been done. That for every beast killed he shall receive the sum of two shillings, which is now the usual price paid, and that he shall have a lease for the same for thirty-one years, giving him an exclusive right." This proposition of Dean's was not accepted; and as the "Councils" had decided to remove the slaughter-house to Corlear's Hook, as soon as possible, they advertise "to grant the exclusive privilege of the whole establishment for five years on a reasonable rent, the contractor to have the benefit of all the material of the present slaughter-house, which will, it is supposed, be sufficient for the new buildings, which are to be erected at the expense of the lessee. Sealed proposals for such lease will be received at the office of the clerk of the city and county, No. 22 Maiden lane, until the 6th of July next, when the contract will be closed.

However, before the contract was given out, the butchers again petition "that from the great distance of the slaughter-house, if erected at Corlaer's Hook, they must be exposed to very great difficulties and inconveniences in the winter season, not only from the badness of the weather, but as the roads are often impassable from deep snow, and the opening of the ground in the spring, that they cannot, in general, cart more than half a load at a time, so that almost the whole morning must be devoted in bringing the beef to market. They therefore beg that all such persons as live to the eastward of the "tea-water pump" may be allowed to kill in their own slaughter-houses, and that most of the butchers that now kill small meats (calves, sheep and lambs) in different parts of the city, will remove their slaughter-houses without the town, or above the limits allowed to them.

In the meantime an offer from James Blanchard had been made to lease and build a large public slaughter-house on certain conditions, which were accepted by the corporation; but now an obstacle presents itself. Mr. Bayard objected to having the old building removed until his claim to it was satisfied, so it was necessary to have the subject before the "Councils" again; and they, it appears, empowered Blanchard to make satisfactory arrangements with Bayard, when the erection of another public slaughter-house was commenced, and we find it finished in the following December of the same year (1784).

The butchers having been disappointed in their petition to the Councils, those who were able purchased or leased lots of Bayard, who, it appears, gave them very favorable terms, when they put up their dwellings upon the "Bowery road," and their slaughter-houses to their rear, upon Elizabeth street; all, however, were built above or north of the lawful line.

This was an unexpected blow to Blanchard, but he concluded that as the Councils had refused to protect the butchers, they were inclined to protect him by removing the established line further north; so he petitions and says: "The line drawn from the North to the East rivers is so contiguous to the city that butchers are moving north of the line and building slaughter-houses; that if the honorable body will remove their line so far north as to make the place at Corlear's Hook the place of slaughter, my expectations will be answered. But if they should think it more proper to have the public place of slaughter under the immediate direction of the corporation, I will take the same sum I advanced for the building, and will give three hundred pounds a year rent during the six years, and deliver the building in good repair." The corporation concluded that, as Blanchard had leased it, subject to the established line, they would not alter it, and so it remained.

I have previously noticed a public slaughter-house which was put up on the Whitehall Dock by the British during the period of the Revolution; this, we find, was applied for by Moses Crosby in the month of February, 1785, who wishes "a lease of the slaughter-house on the Whitehall Dock for the term of seven years, or for a shorter term, and expects to repair said house suitable for a grocery store." It, however, appears that it was neither leased nor repaired by Crosby; as the sum of two pounds two shillings was paid to William Corwin for repairs to slaughter-house at Whitehall." Then in the month of July, 1789, Jeremiah Stone presents a petition in which he states: "That your memorialist, about three years ago, rented a certain dwelling-house, commonly called and known by the name of the 'Old Slaughter-house,' standing over the water, the lower end of Moore street, South-Ward," which he wished renewed; and finally we leave this Whitehall establishment converted into a dwelling house.

The butchers who had erected their dwellings and slaughter-houses near to the Bull's-head" during the Revolution, or those who were in possession, as well as those who were not able to build above the line, were driven into the Corlaer's Hook slaughtering establishment, or very near the present intersection of Water and Jackson streets; and at that period was a much dreaded place to get to or from, either with cattle, carts loaded with live stock, or the meat for market, on account of the miry or rough roads, as well as being dangerous on account of the many thieves and other vagabonds residing in the neighborhood. In the month of March, 1785, we find noticed: "Last week a number of villians were detected in the Bowery lane, and committed to goal, for counterfeiting half-joes, French guineas, dollars, English shillings, two shillings and shilling pieces; their stamps and utensils were found near the slaughter-house, up the East river, which were thrown in the water by a woman, whose husband was concerned in the counterfeiting line."

The establishment of the public slaughter-house in the new locality gave an impetus to the property in the vicinity, and to improve their vacant lands, property-owners asked the "Councils" to repair the principle roads leading to Corlaer's Hook, begging "that the public road leading from the city through Devision street to Corlaer's Hook may be repaired;" and also that leading from Catharine street to the slaughter-house, and the street or

slip near the slaughter-house be filled up and leveled; these roads being at present much out of repair, and almost impassible for the butchers with their meat carts, and for other carriages, and the street opposite the slaughter-house dangerous. They can with the greater freedom make the request, and trust it will be granted, as it may be done in a short time, and with little or no expense, by employing the culprits in the Bridewell in this service." It being the custom at that period to employ the culprits. no doubt the roads were soon after repaired by them: and then we find certain inducements held out to butchers, gardeners and others, by these property-holders, who advertise favorable leases for lots or squares. One notices three hundred lots to be let for a term of years, "lying on the Bowerv, and at Corlaer's Hook, near the slaughter-house in out ward; and it would be most agreeable to the subscriber to let not less than a whole square of the lots to one person. He has provided fencing stuff to inclose the several squares, which, as an encouragement to lessees, will be given gratis."

Mr. Blanchard, as the keeper of the public slaughter-house, found it both disagreeable and unprofitable; the first caused by the law forcing the butchers into an unsuitable building and an inconvenient place; and second, from the fact that he lost his fees, which those above the line had moved from his grasp and pocket. To give you an idea of some of his troubles and trials, as well as those of the butchers. I need but present you with portions of their petitions to the "Councils." In one case Mr. Blanchard is sued by one of the butchers, and thus he memoralizes the "Councils" in October, 1785: "That George Messerve, a butcher, sued your memorialist before Alderman Bayard for a cake of fat he alleges to have lost last winter out of the publick slaughter-house, and last evening it was submitted to a juory, who awarded him damages to the amount of his charge, without costs of sute. There was nothing alledged that the slaughter-house was left unsecured, but that the slaughter-house keeper was answerable for all the beef, heads, tongues, hearts, livers, fat and everything whatsoever, to be delivered to the butchers when demanded, or pay for it if lost, -and for my own security, and until I could lay the matter before the corporation last evening, I directed the doors of the slaughter-house not to be opened till daylight, that every one might distinguish his own property; but about an half hour before day the butchers came as usual, and being told the doors could not be opened till daylight, they instantly broke the locks and went in and took what they said was their own. That under the present situation, your memorialist is subject to be sued for every mistake that is made, whether designedly or inadvertently, and is informed that the measures pursuing is to raise such disturbances as to oblige your memorialist to abandon the publick slaughterhouse. Therefore, your petitioner prayeth that such rules and regulations may be established as to prevent the inconveniences he is exposed to."

The next year, in the month of May, Blanchard presented another document, which sets forth "that your memorialist built the public slaughter-house under your direction and patronage, with implicit confidence in your laws to support it. That your memorialist's importunities have been incessant, but the uneasiness of the butchers and their violence increase. That

all the care ever known in a public slaughter-house is constantly adhered to on my part, notwithstanding they frequently and wantonly injure the implements, which I submit to, and make immediate repairs. They now refuse to pay their duty established by your law. Joseph Mott refuses, and when requested, returns indecent answers, Henry Ashdore (Astor) also refuses, and laments his being obliged to take license under a pack of rebel rascals, with many other enormities and evil examples. Therefore your memorialist begs leave once more humbly to remonstrate, and pray that if there is no way to compel a number of abandoned men to an observance of your laws and a peaceable behavior, that I may have a reasonable compensation for the time of the slaughter-house yet to come."

As time passed, troubles of various kinds appeared rather to increase than otherwise, and perhaps this was caused more particularly by the necessitous demands of a growing population, while the accommodations of the public slaughter-house remained the same. Thus it bred quarrelsomeness, if not with Blanchard, then the butchers themselves. This led many of the butchers to pray for permission of the "Councils" to slaughter cattle on their own land on their paying the keeper of the public slaughter-house his fees;" but this was denied, and thus matters remained until the month of February, 1789, when the butchers again petitioned, reciting that because of the "disadvantage to their business on account of the great distance of the public slaughter-house," from most of their places of residence. That in the winter season after attending market, the night frequently overtakes the butcher before he can drive his cattle to the said slaughter-house and finish his business there, and it often happens that the cattle by being drove such a distance become wild, and there being no fences to stop them, they run some miles before they can be found, in which case the butcher is prevented from attending market the next day. That the roads being very bad, they are sometimes unable to get their beef from the said slaughter house to the markets, on which account they are frequently obliged to employ extra hands and to keep an additional horse. That in summer the young cattle, usually slaughtered at that season, are so very wild that in order to get them they are obliged to catch them with dogs, which heats and inflames the beef in such a manner that it will frequently spoil in a few hours after it is killed, to their great loss. They suggest that the butchers in general might be well accommodated if a line was drawn at Division or Fisher (now Fisher is known as Bayard) street. and they were allowed to kill on their own land above such line. In order to facilitate the measure, they have secured to Mr. Blanchard the payment of his fees for and during the term of his office.

Then Mr. Blanchard follows with a certificate acknowledging this fact; and as a further inducement for the corporation to accept and confirm these arrangements, the butchers volunteer their services as follows: To prevent nuisances, such of the petitioners as this honorable board may think proper to appoint are willing to serve as inspectors of their several slaughterhouses." This was signed by Jothan Post, John Pessinger, Edward Patten, Abraham Bogart, Wm. Wright, John Perrin, William Hopson and Geo. Hopson.

These butchers, no doubt, had been selected from their body as being

among the most acceptable to the corporation who recognized them in these duties as inspectors, and so long as they or their successors were continued in this position, no fault was found with the private slaughter-houses. Thus ended this system of public slaughter-houses—a system that may be considered, under the action of the several governments, a great and a perpetual nuisance to many of the inhabitants of New York for upward of a hundred years.

ABATTOIRS OF PARIS.

Now let us turn to Europe, where under monarchical governments a more arbitrary and perfect system became established when abattoirs were first introduced there. In Paris they originated by a decree dated 9th of February, 1810, under Napoleon I, who ordered the construction of five separate abattoirs in convenient places, and at the expense of that great city, the work to be done under the direction of a committee of architects and engineers appointed for the purpose. Plans were accordingly prepared, with the assistance of a retired butcher. Three abattoirs were erected on the north side of the river Seine, and the other two on the south side. All were originally placed outside the wall or barrier which inclosed the city, but since that period this barrier has been removed beyond these abattoirs, and now all are inclosed in the city proper. The grounds or space which they occupy, if placed together, would measure about three-quarters of a mile, by one-half of a mile.

In the erection of these buildings, and before they were ready for occupation, some eight years were consumed; however, they were put up in the strongest and most durable manner, and all inclosed with heavy stone walls from 10 to 12 feet high, with iron gates, at a cost of about \$4,000,000. The income in 1853 was 1,212,167 francs; a sum which, after deducting from it the necessary expense of maintaining the abattoirs, represented scarcely an investment of four per cent.

The largest business abattoir, or where the most slaughtering is done, is known as the Abattoir de Montmartre, and stands in the north part of the city, nearly two miles from the river Seine. It covers nearly nine acres of ground, or in other words, it is 1,167 feet in length and 450 feet in breadth. It contains about 30 separate buildings, which outside look like cavalry barracks. Four of the largest are used for slaughtering purposes, but are so divided as to make 64 separate places to slaughter in, each one being 15 feet high, 161 feet wide, and 33 feet long. The stone pavement slopes to the gutters, that they may be the more thoroughly cleansed when the great force and quantity of water is let on. This abattoir alone requires 90,000 litres or large quarts of water daily to keep it clean. A more particular description is given of the second one, called the Abattoir de Popincourt, which is represented as being "the finest and largest in its accommodations of the five establishments of the kind in Paris, and which may be taken as a model for all others, only differing from it in size and the position of their buildings." It stands on a sloping ground, in the northeastern part of the city, about a mile and a quarter from the river Seine. and consists of 23 piles of buildings, all neatly arranged within an inclosure of walls. To the right and left of the central court, 438 feet in length by 291 in breadth, are four buildings, separated by a road traversing the

ground in its whole breadth. These are the slaughter-houses, each 141 feet long by 96 broad; a flagged court separates them into two piles, each of which contains eight slaughter-houses for the butchers, who keep the keys of those respectively belonging to them, each of which receives air and light from arcades in the front walls. Above are spacious attics for drying the skins and depositing the tallow; and that they may be always cool, a considerable projection has been given to the roofs. Behind these slaughter-houses are two ranges of sheds, containing sheep-pens, and at their extremities two stables. Each of these buildings contains its loft for forage. Other buildings are used to melt the fat into tallow, and the cellars are used to cool it. In the remotest part of the grounds, in front of the entrance, is a double reservoir for water, 228 feet in length, built in solid masonry, and resting on vaults, under which are stands for carts. A steam-engine of eight-horse power, and a horse engine, are required to raise water enough for use.

The third, called the Abattoir de Grenelle, is situated in the southwestern part of the city, about a mile and a quarter south of the river Seine, and consists of 48 separate slaughter-houses, arranged as the preceding, with other buildings, and a fine artesian well of great depth, being upward of 1,798 feet, from which the water rises 65 feet above the surface and falls into the conduits placed to receive it. It is said that this water will rise to the highest story in Paris.

The fourth, known as the Abattoir Du Roule, is found in the northwestern part of the city, about one mile from the Seine, less than half a mile from the most fashionable avenue, the Champs Elysees, and quite near the beautiful private residences of that neighborhood. This abattoir contains some 32 separate slaughter-houses and the other necessary buildings.

The fifth, and smallest, called the Abattoir de Villejuiz, or the Jews' slaughter-house, is found in the southeastern part of the city, located on one of the main avenues, called Boulevard Hopital. Its distance south from the river Seine is nearly one mile. It contains 32 separate slaughtering-places besides numerous other buildings.

These abatteirs are all conducted in the most rigid manner by a guild or corporate body of butchers, aided by several officers of police. The butchers in general have all their work done by regular slaughterers at a slight cost; in fact no rent is paid except a small octri, or duty on each animal killed, which appears to be about seventy cents more than is paid by the outsider or country butchers, who bring to the markets the meat of animals which they slaughter themselves in their own premises. The city, however, receives a gate duty or octri on each animal living or dead, as it enters the public barrier which incloses the city.

The slaughterers have also an additional perquisite in the blood, brains and rough offal which butchers here are glad to get rid of, or have carried away at a slight cost to themselves. The blood, perhaps, is the most valuable, as it is saved separately in stone wells, then afterwards subjected to a scientific process, after which it is used for refining sugar and manuring the earth.

HOG AND HORSE ABATTOIRS.

Another Abattoir, located outside of the Barrier, just north of the city, where pigs and hogs solely are slaughtered, known as the Abattoir Des Cochons, was built by a wealthy individual, but which is now owned by a company of butchers.

Some twenty years ago, at Mount Faucon in Paris, there existed for several years a place known as "The Horse Abattoir," where the once sleek and beloved animals were deprived of existence. To this place, says an eve witness, all the horses past service were taken, "worn usually to skin and bone, they come in strings of twelve or twenty, are huddled into a stable where they cannot stir, or are left in the open air, tied to the carcasses of those that have just met their fate. A great number of horses. living and dead, are brought to Mount Faucon annually; the winter season, when the poor cannot keep them, being most productive in this respect. By a calculation made in 1827, it was found that thirty-five came to the slaughter-house daily, making a yearly whole of 12,785. Threefourths of them came in life. As, in the same year, the total number of horses in Paris amounted to about 20,500, not less then five-eighths seem thus to perish annually. A deduction must be made, however, for the horses bought in the districts around the city. In any case the number of victims is immense.

Four different methods are used at Mount Faucon for killing horses. One is by injecting air into an open vein, a tedious and little used, though a cleanly process; a second, is by piercing the spinal marrow in the neck; a third way is to fell the animal on the head, as is done with oxen; and a fourth method, that commonly practiced, is to stab the animal in the chest. One melancholy sight follows the death of two or three horses. The stoutest of the victims next to fall is made to draw the newly slain bodies to the scene of the interior operations.

The hair of the mane and tail is removed before death, but the wretched harks have usually lost or been stripped of these appendages before coming to Mount Faucon. When accumulated in quantities, the hair is sold to saddlers and chairmakers. The skins of the horses are, of course, sold to tanners. Of the blood of the horses no use is made, though men of science have recommended its employment in the manufacture of Prussian blue, for which purpose ox blood is in great demand.

The flesh is the next point. In 1739, an ordinance was revived, interdicting its sale in Paris as human food. During the times of the revolutionary scarcity, however, horse flesh was largely used in the capital, and many, who took no other animal food for six months, felt not the slightest injury from it. The open use of it did not cease till 1803. In 1811, a time of scarcity, many butchers were caught making market of it; and soon afterward, the medical men having declared the flesh of a sound horse wholesome, a permission was given to sell it openly, but only in given places. Withdrawn in 1814, this permission was renewed in 1816, and still holds good.

In feeding animals, and as manure, a large portion of the Mount Faucon horse carcasses is admittedly employed; but it is also believed that no

small quantity is sold to the poor, without their own knowledge. As for the numerous workmen at Mount Faucon, they live on nothing else, and they thrive upon it. It perhaps strengthens their nerves for the disagreeable business, as it spirited up our early ancestors of the north to their human butcheries. The use of it among those latter nations only ceased on their conversion to Christianity, as is proved by existing papal bulls. However, Denmark has latterly returned to its old habits, being the first European nation that has authorized the open sale of horse-flesh among the ordinary contents of the shambles. A traveler relates, also, that he tasted some excellent smoked horse, on dining with the Tartarian Khan, Krim-Guerai. Baron Larrey, moreover, tells us that the French army, in various campaigns, were not only sustained well by such food, but were even seemingly cured, by its healthiness, of scorbutic disease.

From different parts of the animals killed at Mount Faucon, glue, oil, and other marketable commodities are produced, and the shoes meet with a ready sale to cutlers and others. In short nothing is lost, for it is even a trade to gather the larvæ as food for fowls; and thus the elegant animals which once pranced proudly on the Champ-de-Mars, and at the gay fetes of the French metropolis, are unscrupulously consigned to the shambles of Mount Faucon, and put to the basest of purposes."

A friend of mine informed me of an incident which occurred while he was present at one of the abattoirs in the city of Paris. He says that he saw a young man enter a sheep-pen and seize a sheep for slaughter, and instead of tying its legs together, he, in a most cruel manner, transfixed it by breaking two of its legs at the joints, crossing them under the animal so that it could not move, and in this way he seized several, which he supposes were afterward slaughtered. The act not being in accordance with the humane feelings of my friend, he left—the cruelty of the act leaving a very unfavorable opinion upon his mind of the Parisian humanity of slaughtering animals.

IN GREAT BRITAIN.

In Scotland we find that Edinburgh has an abattoir, or rather an extensive range of slaughter-houses, which were erected in 1852 by the Town Council, on an area of four acres, at Lochrin, in the southwest quarter of the city, all at a cost of £22,163; and now we learn that it is found a great deal too small for their use, so that many of the animals are slaughtered elsewhere. The buildings are in a double row, extending about 400 feet in length, with a center roadway twenty-five feet wide, all surrounded by a screen wall with two entrance gates.

In Glasgow there are also three public abattoirs in the city, but they are quite small—in fact not much larger than some of our private slaughter-houses; but all are conducted by efficient and proper officers.

London—By the removal of the Smithfield cattle market to Islington in June, 1855, has established at the same place several small public and private slaughter-houses, which have been occasionally noticed as the London abattoirs; but as they are not built after the abattoir plan, the common name of "Public and private slaughter-houses of Smithfield" has been attached to them. They number eight different slaughtering places,

six of which are private, each measuring 17 by 16 feet, and the other two public, which measure each 40 by 37 feet. The cost of the whole was estimated at £24,000 sterling, being built in the most substantial manner of brick and stone. In fact the law, at the time of their erection, demanded that "every slaughter-house must have an asphaltum floor, or be paved with stone laid in cement, and inclined, with canals conducting to a common reservoir." They must be thoroughly drained, and provided with a trap, syphon exit pipes covered with a grating, the bars of which must not be less than three-eighths of an inch apart. An abundant supply of water must be provided, and all thoroughly washed daily. No pit for the collection of blood, or for any other purpose, is permitted on the premises. In the erection of these slaughtering places, the butchers, graziers and salesmen were consulted as to their accommodation, so that the carcasses could be placed in the shops and stalls connected with the slaughter-houses with the least trouble and expense, and from which the carcasses of the various animals are disposed of, principally to supply the neighboring locality, while the great bulk of slaughtered meats is produced in private slaughterhouses in the city proper, principally located in White Chapel, Newgate, Leadenhall, and other places in and around the city.

In the city of Liverpool they have a very large brick and stone building, known as the "Big slaughter-house on the London road," which is owned and conducted by a company of butchers. It stands some distance from the Mersey, but connects with that river by a large sewer, which inclines from five to seven feet to every hundred feet. They have also private slaughtering places throughout the city, all of which are conducted in a cleanly manner.

SPECULATIONS IN WOOD AND BRICK.

This I believe covers all the Abattoirs, or those known by that name, or at least which I have cognizance of, either in Europe or America, except we might take up the great speculations which an enterprising coal-dealer, named Laing, undertook in the erection of a great number of small, cheap buildings, adjoining each other, on Thirty-ninth street and Eleventh avenue, and to which he gave the name of "New York Abattoirs." They were represented as being constructed with pipes to carry off all the blood and refuse, besides freeing it from unpleasant odors, so that the air from it would not be impregnated, and in every department arrangements were to be made with a view to the health of the neighborhood.

In addition to this model abattoir, he contemplated the erection of eighty more slaughter-houses of the same size, and directly opposite he intended to put up a hotel of large dimensions, and also to make arrangements in New Jersey, directly opposite, for a Bull's Head, to contain the cattle which were to be killed on this side, and which were to be brought over in a steamboat, and I suppose that when navigation closed the cattle were to cross over or under the ice.

A portion of the press noticed these New York abattoirs as being the largest and best arranged of any in the country, and strongly recommended the passage of a law, then before the Councils, to prohibit the slaughtering of cattle south of Thirty-fifth street, the object of which was not so

much to improve the sanitary condition of the city as it was to drive the butchers into these or other buildings above this line. But as the butchers were, like other freemen, aware of their rights, they thought that such a law interfered with the peaceable possession of private property, so they would not be driven, and more especially into these unsuitable and inconvenient buildings, even if they were granted free of rent. In the end, however, the whole scheme was exploded; the law was not made, and the additional eighty slaughter-houses, as well as the hotel of large dimensions, were not erected, but the buildings of this New York Abattoir yet remain to view, a monument of impractical application and of a speculation destined to perform a different service from that first intended. The promised pipes which were to free the city from stench have not performed their duty—that is, if we believe many of the travelers on the Hudson River Railroad, who daily pass by "Abattoir place."

Since the commencement of preparing this paper, two other wooden structures of large dimensions have been erected, one of which is found at Harlem and the other at Communipaw, New Jersey. Although the name of Abattoir has been given to these erections, the first principles of the intention of the Abattoirs—taking the Parisian Abattoirs as our models—we neither have perfect arrangements for cleanliness, nor protection against fire, nor conveniencies, the most important features to be secured for such institutions.

These enormous structures, standing on the margin of the shore of Marsh-flats, pour all the blood, serum, feculent matter and other animal substances, settling on the slimy, muddy bottom of these flats, which, neither the ebbing or flowing tides will remove; but which remain a diluted, decomposing animal, unctuous compost, eliminating, to some, a very disagreeable odor. Bearing upon this statement, an illustration of several slaughtering places, built over the flats on the road leading out of Jersey City, toward Bergen, where at low water, superinduces all the disagreeable odor of the decomposing matter, which on several occasions have been complained of. If the same number of animals were to be killed in these large wooden structures, as are slaughtered in the large Abattoirs of Paris, &c., then, of course, the blood-stained and saturated wood work and stagnant animal decomposition would be much worse, and satisfying the most imperfect observer that these wooden structures are not the Abattoir system of Paris.

Then as to protection, the butcher will be unable to insure his meat carcasses against fire in such inflamable buildings, unless at very high premiums of insurance. If New York depends upon such structures to supply her with meat, on any fine morning the lordly inhabitants might wake up without their breakfast, with the unpleasant knowledge that their meat was overdone or rather burnt the night before, with no hope of further supplies until new erections had been completed, or some of the neighboring cities or towns had compassionately sent to their aid their hospitable considerations at the highest cost.

Then as to convenience:—The companies promise to deliver all carcasses in the city every morning, (I suppose they mean at any hour wanted.) But perhaps some cold, freezing morning, they might find their

barge or barges frozen up, or they might be befogged, or storm-stayed, or ran afoul, or sunk, or so late on some of the numerous stalls that a breakfast would have to be partaken without the usual chops or steaks. Then, again, perhaps the companies would have the butchers send forth their carts some six or ten miles every morning to bring away the carcasses of meat—and, there and then, for an hour or more, wait their turn to receive and load their supply; then with the same number of miles to return, perchance, in an atmosphere the thermometer ranging above "90 in the shade," and before arriving at their several destinations, the butchers might find to their cost, that their meats were rendered into a proper condition to demand the special attention and special disposal of the Meat Inspectors. Even when so fortunate that the meats should escape actually being tainted by the long exposure, we still should find that the jolting and rubbing together of quarters and carcasses, by the action of the vehicles, would cause such an artificial sweating and slimy appearance as to render the meat repugnant and repulsive to the purchaser. These large wooden structures, in fact, are calculated only for large slaughtering and packing houses during the cold or winter months. New York presents such peculiarly varied climate, that the slaughtering places are absolutely necessary to be convenient, throughout all seasons of the year, not only to the butchers, but to supply the consumers with fresh, wholesome meats; and these places should, nay, must have the necessary appliances and positions for cleanliness.

These attempts to drive a large and respectable body of citizens into every unsuitable building or place which unprincipled schemers may suggest for their own benefit, regardless of any sanitary bearing upon the subject, is, to say the least, an infamous outrage on the rights of all workingmen, and should be frowned or voted down by all who believe that no city can prosper except all can be protected in a legitimate trade, business or profession.

The intention of this paper is to show whether slaughtering establishments, within the precincts of the city, are baneful to the health of the citizens, and the relation of slaughter-houses to the sanitary condition of the city generally.

For the last ten or fifteen years we have had occasional and often unfavorable reports and references to these places, and the evidences produced have been principally of a pseudo-theoretical character, which political partisans or others have put forth as facts, as they call them, some of which are painted in the very worst colors, as well as being set forth in the most reeking form, and we have often thought, that before some of these reports had been prepared, their authors were previously engaged in taking notes from Allison's History of the French Revolution, the Massacre of the French Huguenots, or something of that character, which enabled them to present these slaughtering places, in such vivid and glaring colors, as at once tending to convict their authors with misrepresentation.

Therefore, I shall not refer to such testimony, either for or against their theories; but where the subject has been and is treated upon true and scientific principles, certainly it demands our serious attention and respect. Facts and evidences also have been presented, showing the healthfulness

of slaughter-houses, and these will explain away every false theory which has yet been brought against them.

Perhaps the reports made by the various Health Inspectors, both public and private, have had as much influence on the public mind as any yet issued, and these I propose to respond to.

The City Inspector, in his report of 1860, after noticing the bone-boilers, manure-heaps, &c., says: "In presenting the slaughter-houses as a nuisance, I would not place them under the same category as the preceding, while they are justly subject of complaints, as producing foul and unhealthy effluvia." Then, in a report of 1861, we find: "These establishments, so dangerous to health, continue to increase with the growth of the city;" and thus these mere assertions were put forth at every opportunity, without the evidence or any proof of their being "so dangerous to publichealth." Even the late elaborate reports made of the sanitary districts by the Citizens' Association, have failed to produce any facts which go to prove the unhealthiness of slaughter-houses, although some of the Inspectors have attempted to do this; yet I am pleased to record that the majority of them have made fair statements of facts and satisfactory reports, which were called for by this excellent association.

A few extracts from these reports will best satisfy the unbiased reader as to which seem to be the most reasonable. Says the Inspector of the Sixth District: "There are four slaughter-houses, kept in good order, and no complaint made by the neighbors." But the one from the Seventh District says: "There are six large slaughter establishments in the ward, all of which are necessarily very filthy, and of course injurious to the public health." In answer to this, the Inspector of the Thirteenth District, in noticing some thirty-eight slaughter-houses, says: "The best establishments are kept in a superior style, and in such order and cleanliness that complaints never are made of them. This class I found clean at all times and seasons, and under all disadvantages." Then we turn to the Fourteenth District and find that the Inspector says: "The slaughter-houses are not so numerous in my district as in some of the others, ten or twelve being all that I could find; but though few in number, they are not the less an evil and a nuisance, as they are always to be found in a filthy condition, exhaling the most offensive odors, reeking with decomposing offal, and offensive alike to morality and the senses." Another Inspector, from the Sixteenth District, makes a report of a very extraordinary and incongruous character. He mixes the slaughter-houses, soap-fat establishments, liquor and policy-shops, as a combined nuisance. What affinity there is between slaughter-houses and policy-shops, perhaps Hon, Fernando Wood could explain. We might also imagine that the vapor of the liquor stills had affected the Inspector's mental inductions when he classified them. Then we have the Inspector's report of the Twenty-second District, who has: "Four slaughter-houses in the district, and these, with their surroundings, may be considered as especial abominations;" but immediately after this remark, he says: "Though none of them are as extensive or as objectionable as others in the immediate neighborhood of the district." In the Eleventh District, the Inspector says: "Of slaughter-houses there are twelve, about one-half of which are situated on the squares fronting on the river. They are generally in good condition, and probably as well kept as is practicable." We now turn to the Twenty-fifth District, whose Inspector reports that "There are in the entire district only about six slaughter-houses, and all but two of these are so small that they are scarcely known in their immediate neighborhood."

The health of the neighborhood of the private abattoirs, or slaughterhouses, has been one of the prominent topics of some of the reports, one of which, made by the City Inspector in 1863, adverts "to the wellascertained facts of the injurious effects upon the health of that portion of the community residing within these neighborhoods." He then attempts to show that the presence of these establishments induces a settlement of the poorer classes in these localities; and he truthfully adds that the want of proper household accommodations renders the usual sanitary precautions almost unavailing in these dwellings, more particularly during the summer and winter months. He also points to the Seventeenth ward as an illustration of the correctness of this statement, and he thinks that this state of things must continue until the removal of the provoking cause, and he adds, moreover, that the advantages of such removal will in a brief period be made manifest in the improved health of the inhabitants of that district. In this ward, he also says, there are fifty-six slaughter-houses, which appears to be double the number in any other ward.

Thus having disposed of the Inspector's report of fifty-six slaughterhouses in the Seventeenth ward, it is with gratification I now call your attention to a report from the pen of the distinguished Dr. Stephen Smith. given in testimony on the Health Bill, before a Committee composed of Senators and Assemblymen, on the 13th of February, 1865, at the city of Albany, in which he speaks of the several wards where the deaths are greatest in the following language: "One-half at least of the population of New York have a death rate no higher than the people of a healthy country town, while the death pressure upon the other half is frightfully severe. For example: The Seventeenth ward, which is inhabited principally by a wealthy class, (and has also within its bounds 56 slaughterhouses, so Inspector Boole informs us,) has a death rate of but 17 in 1,000, or only the death rate of a rural town; but the Sixth and Fourth wards (which have no slaughter-houses, or at least none are noticed in them by Boole, but which are occupied by the laboring classes) have, says Dr. Smith, a death rate varying from 36 to 40 in 1,000. Thus it appears (continues the Doctor) that while the average death rate of the city is very high, it is greatest in those wards where the tenant-house population is the most numerous. We find this excess of mortality just where we found the cause of disease existing most numerously. And when we sift the matter further, we find that the excess of mortality is not even equally distributed over these populous poor wards, but is concentrated upon individual tenant-houses. For example, while the mortality of the Sixth ward is nearly 40 in 1,000, the mortality of its largest tenant-houses is as high as 60 to 70 in 1,000. The following is a recent census of a large but not exceptional tenant-house of that ward: Number of families in the house, 74; persons, 349; deaths, 18 or 53 in 1,000; constant sickness, 1 in 3; deaths of children, 1 in 6, or at the rate of 166 in 1,000.

This convincing evidence against the large tenement-houses offers a true and the chief cause of the great mortality in our city, but as they do not belong to my subject, I will proceed with the one under consideration.

From an excellent and elaborate report made in Paris about the year 1805, by a committee of the National Institute of France, I quote the following: "After having examined the principal manufactories, against which considerable prejudice had been excited at different times, and in different places, the reporters infer that there are but few which are dangerous to health in their vicinity. Hence, say they, we cannot too strongly exhort the magistrates who have the health and safety of the public committed to their charge, to disregard unfounded complaints, which are too frequently brought against different establishments and which daily threaten the prosperity of the honest manufacturer, check the progress of industry, and endanger the fate of art itself. The magistrate ought to be on his guard against the proceedings of the manfacturers' restless and jealous neighbors. We should carefully distinguish what is only disagreeable or inconvenient from what is dangerous or injurious to health: in short, we should be fully aware of this truth, that by listening to complaints of this nature, not only would the establishment of several useful arts in France be prevented, but we should insensibly drive out of our cities the farmers, carpenters, joiners, braziers, coopers, founders, weavers, and all those occupations which are more or less disagreeable to their neighbors. The right of toleration has been established by time and necessity: let us not doubt, therefore, but our manufacturers, when grown older and better known, will peaceably enjoy the same advantage in society; in the meantime we are of opinion that the class ought to avail itself of this circumstance to put them in a particular manner under the protection of Government, and declare publicly that the manufacture of acids, sal-ammoniac, Prussian blue, sugar of lead, white lead, starch, beer and leather, as well as slaughter-houses, are not injurious to the health of the vicinity, when they are properly conducted." (Medical Repository, vol. 9, p. 341.)

A very important charge has been made against slaughter-houses, which is that they breed and disseminate contagious diseases. If we glance back again to the time of the ancients, whom we have previously noticed as having daily slaughtered animals in their holy places, and, no doubt, in the presence of large gatherings of people, we cannot glean any testimony of their having suffered any ill effects from their frequent visits to the places of slaughter; and we might continue on, passing through centuries of time, during which time countless millions of people have been supplied with animal food which had been slaughtered in their abattoirs; and yet not one unfavorable word have they left recorded against these places as being detrimental to health or as originating any contagious diseases.

Even our own records, although showing the several great public slaughter-houses or abattoirs, which have been previously referred to, as not having been kept in the best condition, more especially the one under lease to the Bayards and during the Revolution, yet nothing is said about their superinducing disease.

We may also turn to the yellow fever years in our city in 1791, 1795, 1796, 1799, 1800, 1803, 1805, 1806, 1809, 1819 and 1822, and find not one fact of the kind recorded; but we do find in 1822, while the yellow fever was fatally progressing through our city, a letter from Dr. David Hosack, one of the first physicians of his day, which he wrote to the board of health, and in which he says: "At this moment many parts of our city are filthy and offensive in the extreme, and yet proverbially healthy. Of this fact any person may be satisfied who will visit the streets in the north-eastern part of the city, occupied by slaughter-houses, where the air is loaded with the offensive vapors rising from the decomposition of blood and the other offals of those establishments; yet you will be surprised to be told that those streets are remarkable for their salubrity, and have in no instance been the seat of pestilence, even when the disease was prevailing in the vicinity of our wharves."*

This point of our subject is also favorably noticed in the various cholera reports, more especially those of 1832 and 1849, and of Paris on the cholera of 1832. It was first thought that there were many probable causes of infection existing in the premises of slaughter-houses, cow-houses and sheep-folds; but, after thorough examination, they found it not so, and thus reported that it "was neither among the butchers nor the graziers of that city, that the disease made the most progress"—that those districts in which the public slaughter-houses were situated showed the least number of deaths according to their population. They also reported that, "during all the time of the epidemic no horse-killer was taken sick," and out of thirty persons who worked around these establishments, "where reigns habitually an effluvia offensive beyond description or imagination—one alone died of cholera."

They further add that "the inhabitants residing nearest the places where animal manure was deposited, were not even attacked;" in fact it was supposed that the matter, being in a constant state of decomposition, purified the air—or, in other words, the very smell of the gases they wished to get rid of proved the preventive of the disease.

We turn to the reports made of the cholera in our city in 1849, which show that the wards that suffered most severely were those in which no slaughter-houses, or very few, were situated. These wards are noticed in the order in which the cholera was found most fatal, viz: "The Sixth, Sixteenth, Fourth, First, Eleventh, Seventh and Thirteenth; and those in which nearly or quite two-thirds of the fatal cases occurred were the Sixth, Sixteenth, Fourth and First." This report further states that "the Com-

^{*} Another communication, from a Philadelphian, is found in the New York Times, March 13, 1866, whose subject is on slaughter-houses, and thus concludes: "But I want to tell you of a fact that satisfies me that, although unpleasant, they are not prejudicial to health. I was in Rio Janeiro, Brazil, in 1851, 1852 and 1853, during which years we had the yellow fever very badly. One of the largest slaughter-houses was directly on the main route from the business part of the city to Botafoge, and the lower part of the bay where the diplomatique corps and the better classes of the merchants, native and foreign, resided. As dirt was the rule out there and cleanliness the exception, of course the slaughter-houses were models of filth. Nothing more disgusting can be imagined. The stench from them, in that warm climate, was beyond anything you ever smelt, even in your city of varied smells. But it is a curious fact that during the prevalence of the fever no cases occurred near that slaughter-house. I have no theory to explain this, but simply give you what was recognized as a fact, and one which puzzled those who believed that filth and cickness were very closely and necessarily associated."

mittee could not place slaughter-houses in the same category of nuisances as those of bone-boilers or manure-heaps; but they wished to relieve the city from the disagreeable associations of slaughter-houses and dwelling-houses standing on the line of the same streets. I am inclined to think that in case of another visit from an epidemic, the dwelling-houses standing on the same line, or even in the neighborhood of slaughter-houses, would command very high rents, since the principal proofs show that these localities are nearest exempt from epidemic and other diseases.

In another report, made in December, 1849, singling out a portion of the Seventeenth ward, in which were then closely located twelve slaughter-houses, it is said: "Take the two blocks bounded by Orchard, Essex, Stanton and Rivington streets, in the Seventeenth ward, where there are twelve slaughter-houses, and all occupied as such, only three deaths occurred du-

ring the past summer from the prevailing epidemic."

Perhaps an incident or two in my experience may assist to confirm this fact of the healthfulness of slaughter-houses. An intimate friend of mine, who had served an apprenticeship with a noted jeweler, and who afterwards became his partner in business, in the course of time became an invalid, so emaciated and debilitated that he concluded to leave his business, After some little time I induced him to engage in the slaughter-house with me. He did so, and continued there; and while learning the profession, he was gradually regaining his health and strength, and although a shorter man, he finally got beyond my weight, and still continued to enjoy excellent health. Some few months ago a delicate young man, who had been engaged with a somewhat noted optician on Broadway, but on account of ill health and constant pains in his breast, was induced to give up that business, under the advice of his physicians, was also advised to get employment in a slaughter-house if possible. He being active, intelligent and quite young, I engaged him, and now, although having spent but few months at the business, he has improved in health, strength and appetite; so much so that he is able to perform his labors without the use of any medicine of any sort, otherwise than that which he daily inhales naturally in and around my premises.

My own experience, perhaps, may also appear somewhat favorable on

many of the points of the subject under consideration.

In the fall of 1815, my parents moved to the city, near the intersection of Elizabeth and Broome streets, when I was between four and five years of age, into a neighborhood almost surrounded by slaughter-houses. They were situated in Elizabeth, both above and below Broome street, and on the same block in Mott street. Another move was soon afterwards made to the intersection of Broome and Mulberry streets, where again slaughter-houses were found close by; and two years subsequently found my parents at the intersection of Spring and Mulberry streets, where the slaughter-houses were numerous, there being some twenty-five or thirty in an area of from two to three hundred yards. During the yellow fever of 1822, no neighborhood in our city was more healthy or with fewer cases of the epidemic than this one. After a residence of about ten years here, my parents removed farther up town.

In 1827 I was apprenticed to a well known butcher, whose business was immense, and of course, the labor was in proportion. A little remark made at the time, which I shall never forget, would rather tend to prove this fact. Said my employer: "The first afternoon that you have nothing to do, you can take the best horse and wagon, and I will give you a five dollar bill for spending money, that you may have a good time:" but that day never offered itself during my apprenticeship; and I almost dare assert, that during all the period, both of apprenticeship and journeyman, I was nearly one-half of the time in or about the slaughter-house. My employer resided on the north side of First street, between the First and Second avenues, where, on the south or opposite side of that street, there were no less than six slaughter-houses and vards, nearly adjoining one another, beside those on the back streets, which, when there was a southerly breeze, would acquaint you of their close proximity, when not properly cleansed: yet my employer was a healthy man. I might also here relate, that at times when work was very pressing, to save time in making toilet, our dinner was sent to us, and placed on the warm viscera, from which my meal was partaken with a sharp appetite. In warm, or very hot weather, slaughtering was left until toward evening; then a most refreshing sleep was indulged in on the bare slaughter-house floor, perhaps for two or three hours, or until the hour for commencing work.

Even after I had commenced business for myself, a great part of the afternoons of at least twenty years, was devoted to the slaughter-house or among the animals; but as soon as I gave up this part of my profession to the care of my help, and filled up that time with study, recreation or other amusements, I am compelled to say, that although I have always enjoyed good health, yet it was not so robust as when laboriously engaged in the slaughter-house.

I desire also to notice one or two other pleasing incidents which occurred during my apprenticeship. I recollect that a child, whose lower limbs appeared withered and weak, was brought by its mother in a carriage, some two or three times a week to the slaughter-house, and that the mother would strip its puny limbs, and at the moment when the warm entrails of the animal were taken from it and placed in a tub, she thrust these infant limbs in among the entrails, and, no doubt, it was the nourishing effluvia of the slaughtered animal, the locality, and the vitality of those entrails, or all combined, that helped the child to strength and future health; and the mother, an accomplished lady, was often pleased to acknowledge the healthfulness of slaughter-houses.

Subsequent to that period another older child, a boy, whose leg was paralyzed, was brought by his mother to my place, almost daily, for several weeks, and at last she had the pleasure of seeing a change, as the limb had again assumed its natural condition. It would be difficult now to induce either the mother or son, now a busy merchant down town, to believe that a slaughter-house is a nuisance, or a place to breed and disseminate disease.

I have heard some persons say that stench is a nuisance, whether it begets disease or not. Perhaps it is, but in my experience I have found that what is a pleasant cdor to one is intolerable to another. Musk or

cologne may be considered a stench. Henry IV., of France, fainted at the odor of a rose; others have done so under the odor of the rarest perfumes.

I shall now close this somewhat lengthy, and not very interesting subject, by quoting from a report made by a special committee of the common council in January, 1850, which says that "to say that a slaughter-house is, per se, a public nuisance is asserting a principle at war with the experience of mankind in all ages, and, we may add, with the opinions of the most eminent physicians and pathologists of modern times. That the business is repugnant to the feelings of the sensitive and over-delicate is undoubtedly true, and such is the case with other trades and employments mecessary in themselves, and carried on in our most public thoroughfares. The undertaker who exhibits his sad memorials of the uncertainty of human life, and its certain termination, shocks the eye and shatters the nerves of the timid and weak; the great agent of human industry and power sends its harsh and discordant scream into the ears of a portion of our citizens, almost rendering "night hideous," and startling children from their propriety: the lumbering omnibus and the clattering cart, all and each are offensive to the ear, the eye, or the comfort of individuals, but they are all parts of that great system of civilization and human policy which, under the influence of Christianity, has served alike to elevate, exalt and improve the condition of mankind."

Mr. Chairman, the paper thus far, which I have the honor to present this evening, necessarily has been lengthy in its character in reference to the very debatable subject of the injurious effects upon the public health by the presence of slaughter-houses, as I have shown, disproves the constantly reiterated assertions to this effect. The practical experience of the whole medical faculty for generations past, including the present period. never have treated diseases in relation with supposed poisonous atmospheres caused by the slaughtering of large numbers of animals in abattoirs. The population of cities, and especially those in the local areas of slaughter-houses, have never attributed their ailments, nor suspected slaughtering places as being the superinducing cause of disease that might appear in their midst. No, sir, these charges made and brought before the public, no doubt, have been made by theorists, after having partaken of a bountiful repast of roast beef, a rare beef-steak, or a fine mutton-chop, which have emanated from the very places they would seek to condemn.

Atmosphere and temperature excite their influences in promoting diseases far more than accidental causes, such as slaughter-houses. The countries in and near the tropics are scourged with intermittent and remittent fevers of intractable character, by yellow fever, bowel complaints, &c., while those in temperate climes northward are subject to diseases of the respiratory organs, to continued fevers, to typhus fever, fevers of less severity, pulmonary consumption, rheumatism, cutaneous diseases, &c. Moist atmospheres all tend to destroy vital power, and it is a notorious fact, that excessive humidity, co-existing with a high temperature, is most fatal to human life. The pure air of rural districts is subject to contamination by the exhalations from stagnant waters and marsh land, which, if they do not produce actual disease, have a poisonous influence on the general health of

the surrounding inhabitants. But the atmosphere of large towns and cities is subject to still greater pollutions by the noxious gases given off—first, from the human body itself; next the decomposition of animal and vegetable matter allowed to collect in cellars and in the streets and open lots, the refuse of manufactories, the gases of coal, the dust created by traffic, and above all these, the deadly poison given from the vast sewerage of the city of New York, so offensively experienced with every electric change in the atmosphere, which the "press" almost daily attributes to leakage from gas pipes, and gas companies (although guilty when they open their retorts), are thus blamed, as are slaughter-houses, for offenses against the public health, of which they are entirely guiltless.

The debilitating effect of a residence in large cities is most apparent in that class of the inhabitants who follow their employment within doors, and who, in addition to the atmospheric changes without, are exposed to close and heated atmospheres of confined rooms, shops, and workshops, often wanting the wholesome stimulus of light. There is as much difference between the indoor and outdoor laborers and clerks of large cities as there is between the inhabitants of cities and of the country. A residence in large cities reduces the vital force and the physical strength and vigor, and predisposes to diseases incident upon want of tone and power.

A still more fatal cause of debility and disease in large cities is the abuse of deleterious liquors and impure malt beverages. Luxury, too, like intemperance, tends to undermine the health and debilitate the constitution. Predisposing original and acquired differences, distinguish man from man, and there are various other and complicated influences to which the animal system of man is exposed in all states of society. The logic of facts upsets all theories.

The soldier is proved to be healthier in the field than in the barracks, because his mind and body are exercised. Neither contagion nor epidemics, Asiatic cholera nor the influenza, select the localities of slaughter-houses. Obeying unchangeable and specific laws, epidemic disease alike visits the rich and the poor—the weak and the vigorous—age and youth—in the hovel and in the palace—in the boarding-house and in the hotel—in public and private buildings; while it is most remarkable, and worthy of your special notice, that the hitherto considered loathsome slaughter-houses have proved themselves exempt from all epidemics and local disease necessarily affecting the health of man.







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